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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/679,750

10/06/2003

Martin S. Maltz

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EXAMINER

KASSA, HILINA S

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

07/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/679,750 | <b>Applicant(s)</b><br>MALTZ, MARTIN S. |  |
|                              | <b>Examiner</b><br>Hilina S. Kassa   | <b>Art Unit</b><br>2625                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

On page 4, line 21, "**will finds**" should be changed to "**will find**".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Donaldson et al. (US Patent Number 6,694,109 B1).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

**(1) regarding claim 1:**

As shown in figures 1-6, Donaldson et al. disclose, a method for compensating for printer characteristics having a tone reproduction curve which is either too rough to be fitted by interpolation or which does not have a simple parametric function (column 3, lines 15-35), comprising:

a) placing a first set of control points on said tone reproduction curve (column 5, lines 41-43; column 8, lines 7-9);

b) fitting a first smoothed curve to said first set of control points (column 5, lines 44-46; column 8, lines 12-16);

c) moving a subset of points belonging to the set of first control points along the first smoothed curve (column 8, lines 17-19; note that when adding the model values, the points change);

d) generating a second set of control points comprising the moved first control points and the remaining unmoved first control points (column 8, lines 20-26);

e) fitting a second smoothed curve to said second set of control points (column 8, lines 27-28);

f) determining a differential function between the first and second fitted curves (column 8, lines 48-53);

g) adding said difference to the original curve to produce a smoothly modified last curve, which retains the original curve's characteristics (column 8, line 63-column 9, line 6).

**(2) regarding claim 2:**

Donaldson et al. further disclose, a method for compensating for printer characteristics, as in claim 1, wherein said first set of control points are placed on said original curve such that each point is representative of the behavior of the curve in the vicinity of the point (column 8, lines 7-9).

**(3) regarding claim 3:**

Donaldson et al. further disclose, a method for compensating for printer characteristics, as in claim 1, wherein the movement first control points indicates a desired change in that region of the curve of the original function (column 8, lines 12-15).

**(4) regarding claim 4:**

Donaldson et al. further disclose, a method for compensating for printer characteristics, as in claim 1, wherein the first smooth curve is represented by a

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parametric spline fitted through the first set of control points wherein X and Y are smooth spline functions of T passing through  $X_i(T_i)$  and  $Y_i(T_i)$ , where i is a control point index (column 6, lines 28-35).

**(5) regarding claim 5:**

Donaldson et al. further disclose, a method for compensating for printer characteristics, as in claim 4, wherein the movement of control points to a new position is by changing point j at  $X_j(T_j)$  and  $Y_j(T_j)$  to  $X'_j(T_j)$  and  $Y'_j(T_j)$  (column 7, lines 45-50).

**(6) regarding claim 6:**

Donaldson et al. further disclose, a method for compensating for printer characteristics, as in claim 5, wherein the fitting of the second smooth curve through the second set of control points is represented by  $X'(T)$  and  $Y'(T)$  (column 7, lines 45-60; note that the second curve has parameter j. As shown in the program, the parameter is along a vertical and horizontal axis).

**(7) regarding claim 7:**

Donaldson et al. further disclose, a method for compensating for printer characteristics, as in claim 6, wherein the difference between curves is represented by:

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$$x'(T)=x(T)+X'(T)-X(T)$$

$$y'(T)=y(T)+Y'(T)-Y(T)$$

where T is the distance along curve (x,y) and not along curve (x',y'). (column 7, lines 45-64; note that if  $\text{NewTRC}(i) - \text{OldTRC}(i) > \text{MaxChange}$ , then  $\text{NewTRC}(i) = \text{oldTRC}(i) + \text{MaxChange}$ ; note that the new TRC equals the current TRC plus the value of a predetermined maximum change between the target TRC and the model delta)

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Engeldrum et al. (US Patent Number 6,847,376 B2) disclose an invention that provides a technique for modeling the tone reproduction curve of a flat panel screen such as an LCD.

Hersch et al. (US Publication Number 2004/0233463 A1) disclose methods and systems for printing by superposing a metallic ink and transparent inks.

Harrington (US Patent Number 5,347,369) discloses a method for calibrating a printer determines a tone reproduction curve for the printer.

Ikegami (US Patent Number 5,337,166) discloses a color signal transforming apparatus of the type in which three or four input signals are each divided into higher bits and lower bits, and output signals are formed by calculating basic data obtained

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from the combinations of the higher bits and the combination of interpolation data obtained from the combinations of the higher bits and lower bits.

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb could be reached at (571) 272- 7406.

**Any response to this action should be mailed to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

**Or faxed to:**

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

  
TWYLER LAMB  
SUPERVISORY PATENT EXAMINER

Hilina Kassa

July 09, 2007

